

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

<b>Appellants:</b> David J. Waller  <b>Title:</b> PRINTING MECHANISM AND METHOD  <b>Appl. No.:</b> 10/780,169  <b>Filing Date:</b> 02/17/2004  <b>Examiner:</b> Uhlenhake, Jason S.  <b>Art Unit:</b> 2853	<table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="text-align: center; padding: 2px;"><b><u>CERTIFICATE OF FACSIMILE TRANSMISSION</u></b></td></tr><tr><td style="text-align: center; padding: 2px;"><small>I hereby certify that this paper is being facsimile transmitted to the United States Patent and Trademark Office, Alexandria, Virginia on the date below.</small></td></tr><tr><td style="text-align: center; padding: 5px;"><i>Todd A. Rathe</i></td></tr><tr><td style="text-align: center; padding: 2px;"><small>(Printed Name)</small></td></tr><tr><td style="text-align: center; padding: 5px;"> </td></tr><tr><td style="text-align: center; padding: 2px;"><small>(Signature)</small></td></tr><tr><td style="text-align: center; padding: 5px;"> </td></tr><tr><td style="text-align: center; padding: 2px;"><small>(Date of Deposit)</small></td></tr></table>	<b><u>CERTIFICATE OF FACSIMILE TRANSMISSION</u></b>	<small>I hereby certify that this paper is being facsimile transmitted to the United States Patent and Trademark Office, Alexandria, Virginia on the date below.</small>	<i>Todd A. Rathe</i>	<small>(Printed Name)</small>		<small>(Signature)</small>		<small>(Date of Deposit)</small>
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<i>Todd A. Rathe</i>									
<small>(Printed Name)</small>									
<small>(Signature)</small>									
<small>(Date of Deposit)</small>									

**REPLY BRIEF**

Mail Stop Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This Reply Brief is in response to the Examiner's Answer mailed on September 14, 2007. For the following reasons, Appellants respectfully request that the Board reverse all claim rejections and indicate that a Notice of Allowance respecting all pending claims be issued.

**I. The Examiner's Rejection of Claim 13 under 35 U.S.C. § 102(b) as being as being anticipated by U.S. Patent No. 5,907,334 (Hirano) Should Be Reversed Because Hirano Does Not Disclose Every Limitation of Each of the Claims.**

The Examiner's Answer fails to rebut the points set forth in Appellants' Appeal Brief regarding the improper rejection of claim 13. The Examiner's Answer still fails

to establish a prima facie case of anticipation. The Examiner's answer still fails to actually read elements of Ryan upon the actual claim limitations.

Claim 13 recites a servicing station drive structure that moves between two different positions in which the drive structure engages different sleds in the different positions. Nowhere does the Examiner's Answer indicate what is considered to be the servicing station drive structure. Although the reprint of the rejection on page 4 characterizes carriers 10, 19 of Ryan as the servicing station drive structure, the same rejection also characterizes the exact same carriers 10, 19 as the sleds. As previously noted, this makes little sense.

The Examiner's answer now characterizes torsion springs 35, 38 of Ryan as the biasing member. Since the claim requires that the biasing member bias the service station drive structure and since springs 35, 38 bias caps 34 and 37, it would seem that the Examiner is now characterizing caps 34 and 37 as the "service station drive structure". However, such a characterization is flawed because (1) how can a cap for printhead nozzles be considered a "service station drive structure" and (2) neither cap 37 nor 34 is a movable between different positions in which cap 37 engages different sleds or in which cap 34 engages different sleds. In fact, this would make little sense as you would not want a color cap to cap a black ink print head or a color cap to cap a black printhead

Moreover, the Examiner's new characterization of torsion springs 35, 38 of Ryan as the biasing member still fails to address the actual limitation of claim 13. Claim 13 does not simply recite a biasing member. Rather, claim 13 also recites that the biasing member biases the servicing station to move from the first engaged position to the second engaged position. Thus, claim 13 requires that the biasing member urge the drive structure from a first engaged position in which the drive structure engages the first sled (via the first engagement structure) to a second engaged position in which the drive structure engages the second sled (via the second engagement structure).

Even assuming, arguendo, that caps 37 or 34 could properly be characterized as a servicing station drive structure, springs 35, 38 clearly do not bias cap 34 or cap 37 so as to move cap 37 from engagement with one sled into engagement with another sled. In contrast, springs 35 and 38 merely bias caps 34 and 37 into and OUT OF engagement with respect to an ASSIGNED print head. Thus, the Examiner has failed to establish a prima facie case of anticipation with regard to claim 13. Accordingly, the rejection of claim 13 should be reversed.

**II. The Examiner's Rejection of Claims 31-35, 38-39, 42 and 43 under 35 U.S.C. § 102(B) As Being As Being Anticipated by U.S. Patent No. 6,172,691 (Belon et al.) Should Be Reversed Because Belon Does Not Disclose Every Limitation of Each of the Claims.**

**A. Claim 31**

Claim 31 recites a printed servicing mechanism which includes a driveshaft and a sled including a rack adapted to selectively engage the driveshaft. A sled further includes a retaining wall position to retain the driveshaft on the rack in a zone.

As previously pointed out by Appellants, Bob does not disclose a sled having a rack that is adapted to selectively engage a driveshaft.

The Examiner's Answer fails to rebut this point. The Examiner argues in his answer that rack gear 198A of Bob selectively engages shaft 82 via rocker gear 144 AND shaft 150.

However, this attempt to read a Bob upon claim 31 does not comport with the actual claim language used. As a comparison, Claim 31 does not recite that one driveshaft (82) selectively engages another driveshaft (150). Claim 31 does not recite that a rack (198A) is selectively "coupled" to a driveshaft. In contrast, claim 31 recites a rack that, it self, selectively engages a driveshaft. The Random House College Dictionary (1984) defines "engage" in the mechanical sense to mean "to cause (gears or the like) to become interlock; interlock with." Rack 198A of Bob is never selectively interlock with shaft 82. Thus, the rejection of claims 31 should be

reversed. Claims 32-35 and 38-39 depend from claim 31 and are patently distinct over Belon for the same reasons.

B. Claim 42

Claim 42 recites a printer which includes a sled having an engagement structure and further recites a drive shaft that is movable between an engaged position and a disengaged position with respect to the engagement structure.

As pointed out in Appellants' Appeal Brief, Belon fails to disclose a drive shaft that is movable between an engaged position and a disengage position with respect to engagement structure of a sled.

The Examiner's Answer fails to rebut this point. The Examiner in his answer refers to shaft 82, rocker gear 144 and 150 of Bob as somehow meeting the limitations of claim 42. This argument is without merit. Shaft 150 does not move between an engaged position and a disengage position with respect to rack gear 198A (characterized as the engagement structure). Shaft 150 is always engaged with rack 198A.

A rocker gear 144 does not engage rack gear 198A. Nor can rocker gear 144 three properly characterized as a driveshaft.

Shaft 82 does not engage rack gear 198. Even assuming, arguendo, that the limitation "engage" were somehow analogous to "coupled", shaft 82, rocker 144 and shaft 150 cannot be properly characterized as "a driveshaft." Thus, the rejection of claim 42 should be reversed. Claim 43 depends from claim 42 and is patentably the distinct over Belon for the same reasons.

**III. The Examiner's Rejection of Claims 20-22, 24-28, 46-49 and 51-54 under 35 U.S.C. § 102(B) As Being As Being Anticipated by U.S. Patent Publication No. 2004/0252154 (Griesemer et al) Should Be Reversed Because Griesemer et al. Does Not Disclose Every Limitation of Each of the Claims.**

A. Claim 20

Claim 20 recites a printing mechanism which includes means for servicing a printhead, wherein the means for servicing includes means for retaining and the first and second means for engaging. Claim 20 further recites means for translating the means for servicing, wherein the means for translating moves from a first translating position in engagement with the first means for engaging in a second translating position in engagement with the second means for engaging.

In the Appellants Appeal Brief, Appellants' pointed out that Griesemer fails to disclose or suggest a printing mechanism which includes means for servicing a printhead, wherein the means for servicing includes means for retaining and the first and second means for engaging. Griesemer also fails to disclose means for translating the means for servicing, wherein the means for translating moves from a first translating position in engagement with the first means for engaging in a second translating position in engagement with the second means for engaging.

The Examiner's Answer fails to rebut such points. In fact, the Examiner's Answer fails to completely address Appellants' FULL Arguments and fails to address ALL of the ACTUAL claim limitations. The Examiner states:

Appellant argues that Greg fail to disclose or suggest a printing mechanism which includes means for servicing a printhead, wherein the means for servicing includes means for retaining and the first and second means for engaging and means for translating the means for servicing.

(Examiner's Answer, page 27).

However, this is not what Appellants' have merely argued nor is this what claim 20 merely recites. Claim 20 not only recites "means for translating" but ALSO recites that the means for translating "moves from a first translating position in engagement with the first means for engaging and a second translating position in engagement with a second means for engaging.

The Examiner's Answer characterizes guide slots 86 and guide members 88 as the "means for translating." However, guide slots 86 and guide members 88

clearly do not move from a first translating position in engagement with the first means for engaging (wipers 104, 106 as characterized by the Examiner) and a second translating position in engagement with the second means for engaging (100, 102 as characterized by the Examiner). Obviously, guide slots 86 are stationary.

Guide members 88 are part of maintenance sled 70 to which caps 100, 102 and wipers 104, 106 are **fixed**. The Examiner, himself, acknowledges on page 29 of the Examiner's Answer that: "whenever the sled is moved, the wipers and the caps that are mounted on the sled must also move with the sled 70." Since guide members 88 are fixed to and extend from sled 70, guide members 88 are also fixed to and move with both caps 100, 102 and wipers 104, 106. As a result, guide members 88 cannot move between a first translating position in engagement with wipers 104, 106 (the second means for engaging) and a second translating position in engagement with caps 100, 102 (the first means for engaging). Thus, the rejection of claim 20 should be reversed. Claims 21-22 depend from claim 20 and are patentably distinct over Griesemer for the same reasons.

B. Claim 24

Claim 24 recites a method of actuating a service mechanism to service a printhead. The method includes moving a translation device into engagement with a retaining portion of a first servicing mechanism, powering the translation device such that the first servicing mechanism is moved with respect to the translation device such that the translation device is positioned out of the retaining region, moving the translation device into engagement with the second region of the servicing mechanism and powering the translation device such at the second servicing mechanism is moved with respect to the translation device.

As pointed out in Appellants' Appeal Brief, Griesemer fails to disclose moving a first servicing mechanism with respect to a translation device and moving a second servicing mechanism with respect to the translation device. The Examiner's Answer

has failed to rebut such points. In response to such points, the Examiner's Answer argues that:

Whenever the sled 70 is moved, the wipers and caps that are mounted on the sled must also move with the sled 70. Therefore, the wipers 104, 106 and caps 100, 102 (servicing mechanisms) move with respect to the sled 70 (translating device).

(Examiner's Answer, page 29-page 30) (Emphasis added).

However, this assertion makes little sense. When two articles are moved "with respect to one another" they move relative to one another. Two articles that move WITH ONE ANOTHER (the wipers and caps moving with sled 70 as acknowledged by the Examiner) cannot be properly described as moving "with respect to one another". By way of analogy, cargo tied down in a bed of the truck could not be properly characterized as moving "with respect to" the truck when the truck is driving down a road. Likewise, it cannot be argued that the truck is moving "with respect to" the tied down cargo when the truck is driving down the road. The Examiner's construction contradicts the plain meaning of such limitations. Thus, the rejection of claim 24 should be reversed. Claims 25-28 depend from claim 24 and are patentably distinct over Griesemer for the same reasons.

C. Claim 46

Claim 46 recites a printing mechanism which includes means for translating a means for servicing a print head. The means for servicing includes means for retaining the means for translating in engagement with the means for servicing in a predetermined zone of engagement of the means for retaining.

Appellants' note that Appellants' previous points with regard to claim 46 may not be applicable since the Examiner's Answer completely changes and rewrites the grounds for the rejection of claim 46 as compared to the Final Office Action dated September 28, 2006 AND as compared to the Examiner's Construction raised during the Examiner Interview held on July 14, 2006. In the Final Office Action dated September 28, 2006, the examiner characterized guide slot 86 as the means for

translating. In the Examiner Interview held on July 14, 2006, the Examiner characterized engagement member 74 as the means for translating. The Examiner's Answer NOW characterizes guide member 88 as the means for translating. Despite being repeatedly presented with a **moving target**, Appellants' respectfully note that the Examiner's new interpretation of Greg still fails to anticipate claim 46.

Claim 46 recites "means for translating a means for servicing said print head." The plain meaning of the term "translating" means to move. The Examiner's new interpretation of Greg characterizes maintenance housing 68 as the "means for servicing". However, maintenance housing 68 does NOT move. Guide member 88 (characterized as the means for translating) does not move maintenance housing 68. Accordingly, this moving target itself misses the mark.

Although the sled 70 moves, guide member 88 does not move sled 70. Furthermore, even if sled 70 were somehow construed to be the means for servicing, sled 70 does not include guide slot 86 (characterized as the means for retaining). Thus, the rejection of claim 46 should be reversed. Claims 47-49 depend from claim 46 and are patentably distinct over Griesemer for the same reasons. If yet another moving target is presented to Appellants, Appellants' request that the Examiner provide Appellants a fair opportunity to respond to the new moving target with respect to claim 46 and each of the dependent claims 47-49, the rejections of which were not individually addressed based on the Examiner's original rejection of such claims set forth in the Final Office Action.

D. Claim 51

Claim 51 recite a method of actuating a service mechanism which includes moving a translation device into engagement with a first region of a servicing mechanism and powering the translation device such that the servicing mechanism is moved with respect to the translation device and such that a second region of the servicing mechanism is moved into engagement with the translation device.

As pointed out in Appellants' Appeal Brief, Griesemer fails to disclose moving a servicing mechanism with respect to the translation device. . The Examiner's



Answer has failed to rebut such points. In response to such points, the Examiner's Answer argues that:

Whenever the sled 70 is moved, the wipers and caps that are mounted on the sled must also move with the sled 70. Therefore, the wipers 104, 106 and caps 100, 102 (servicing mechanisms) move with respect to the sled 70 (translating device).

(Examiner's Answer, page 31) (Emphasis added).

However, this assertion makes little sense. When two articles are moved "with respect to one another" they move relative to one another. Two articles that move WITH ONE ANOTHER (the wipers and caps moving with sled 70 as acknowledged by the Examiner) cannot be properly described as moving "with respect to one another". By way of analogy, cargo tied down in a bed of the truck could not be properly characterized as moving "with respect to" the truck when the truck is driving down a road. Likewise, it cannot be argued that the truck is moving "with respect to" the tied down cargo when the truck is driving down the road. The Examiner's construction contradicts the plain meaning of such limitations. Thus, the rejection of claim 51 should be reversed. Claims 52-54 depend from claim 51 and are patentably distinct over Griesemer for the same reasons.

**IV. The Examiner's rejection of claims 16-18 and 20 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,907,334 (Hirano) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al); should be reversed because neither Hirano nor Griesemer, alone or in combination, disclose or suggest all of the limitations of each of the claims.**

**A. Claims 16-18**

Claims 16-18 depend from claim 13 and overcome the rejection for the same reasons discussed above with respect to the rejection of claim 13 based upon Hirano et al. Griesemer fails to satisfy the deficiencies of Hirano. Accordingly, the rejection of claims 16-18 should be reversed.

B. Claim 20

In Appellants' Appeal Brief, Appellants requested reversal of the rejection of claim 20. The Examiner's Answer fails to include any rebuttal with respect to Appellants' points regarding the rejection of claim 20. Moreover, Page 31 fails to indicate that the rejection of claim 20 is being maintained. Accordingly, Appellants continue to request that the rejection of claim 20 V. reversed.

**V. The Examiner's rejection of claim 37 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,172,691 (Belon et al) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al) and further in view of U.S. Patent No. 6,357,851 (Gaasch); should be reversed because neither Belon, Griesemer nor Gaasch, alone or in combination, disclose or suggest all of the limitations of each of the claims.**

Claim 37 depends from claim 31 and overcomes rejection for the same reasons discussed above with respect to the rejection of claim 31 based upon Belon. Neither Griesemer nor Gaasch, alone or in combination, satisfy the deficiencies of Belon. Accordingly, the rejection is improper and should be reversed.

**VI. The Examiner's rejection of claim 36, 40-41, 44-45 and 55 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,172,691 (Belon et al) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al) should be reversed because neither Belon nor Griesemer, alone or in combination, disclose or suggest all of the limitations of each of the claims.**

Claims 36, 40-41 and 55 depend from claim 31 and overcomes rejection for the same reasons discussed above with respect to the rejection of claim 31 based upon Belon. Claims 44-45 depend from claim 42 and overcome rejection for the same reasons discussed above with respect to the rejection of claim 42 based upon Belon. Griesemer fails to satisfy the deficiencies of Belon.

**VII. The Examiner's rejection of claim 30 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,587,729 (Lee) in view of U.S. Patent**

**Publication No. 2004/0252154 (Griesemer et al); should be reversed because neither Lee, nor Griesemer, alone or in combination, disclose or suggest all of the limitations of each of the claims.**

Claim 30 depends from claim 1. As set forth on page 23 of the Examiner's Answer, the rejection of claim 1 has been withdrawn. Accordingly, the rejection of claim 30 which depend from claim 1 should also be withdrawn.

Alternatively, if it is the Examiner's position that the hypothetical combination of Greg and Lee renders claim 30 unpatentable, then the Examiner has failed to establish a prima facie case of obviousness by physically pointing out how the hypothetical combination allegedly reads upon each of the limitations of claim 30. Moreover, the Examiner has failed to respond to Appellants' points with regard to the rejection of base claim 1. Thus, even though Page 31 of the Examiner's Answer indicates that the rejection of claim 30 is maintained, this rejection is improper and should be reversed.

**VIII. The Examiner's rejection of claim 56 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,172,691 (Belon et al) in view of U.S. Patent No. 5,325,151 (Kimura et al.) should be reversed because neither Belon nor Kimura, alone or in combination, disclose or suggest all of the limitations of each of the claims.**

Claim 56 depends from claim 31 and overcomes rejection for the same reasons discussed above with respect to the rejection of claim 31 based upon Belon. Kimura fails to satisfy the deficiencies of Belon.

**IX. The Examiner's rejection of claim 50 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2004/0252154 (Griesemer et al) in view of US Patent No. 6,328,412 (Taylor et al), US Patent Publication to 003/0169312 (Ota et al.) and U.S. Patent No. 6,172,691 (Belon et al) should be reversed because neither Griesemer, Taylor, Ota nor Belon, alone or in combination, disclose or suggest all of the limitations of each of the claims.**

Claim 50 depends from claim 46 and overcomes rejection for the same reasons discussed above with respect to the rejection of claim 46 based upon Griesemer. Neither Taylor, Ota nor Belon, alone or in combination, satisfy the deficiencies of Belon.

### **Conclusion**

In view of the foregoing, the Appellants submit: (1) that claims 13 is not properly rejected under 35 U.S.C. § 102(b) as being as being anticipated by U.S. Patent No. 5,907,334 (Hirano et al.); (2) that claims 31-35, 38-39, 42 and 43 are not properly rejected under 35 U.S.C. § 102(b) as being as being anticipated by U.S. Patent No. 6,172,691 (Belon et al); (3) that claims 20-22, 24-28, 46-47 and 51-54 are not properly rejected under 35 U.S.C. § 102(e) as being as being anticipated by U.S. Patent Publication No. 2004/0252154 (Griesemer et al); (4) that claims 16-18 and 20 are not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,907,334 (Hirano et al.) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al); (5) that claim 37 is not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,172,691 (Belon et al) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al) and further in view of US Patent No. 6,357,851 (Gaasch); (6) that claims 36, 40-41, 44-45 and 55 are not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,172,691 (Belon et al) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al); (7) that claim 30 is not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,587,729 (Lee) in view of U.S. Patent Publication No. 2004/0252154 (Griesemer et al); (8) that claim 56 is not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,172,691 (Belon et al) in view of U.S. Patent No. 5,325,151 (Kimura et al.); and (9) that claim 50 is not properly rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Publication No. 2004/0252154 (Griesemer et al) in view of US Patent No. 6,328,412 (Taylor et al.). Accordingly, Appellants respectfully request that the Board reverse all claim rejections and indicate that a Notice of Allowance respecting all pending claims should be issued.

Summary

For the foregoing, it is submitted that the Examiner's rejections are erroneous, and reversal of the rejections is respectfully requested.

Dated this 14<sup>th</sup> day of November, 2007.

P.O. Address:

RATHE PATENT & IP LAW  
10611 W. Hawthorne Farms Lane  
Mequon, WI 53097  
Telephone: (262) 478-9353

Respectfully submitted,

By Todd A. Rathe

Todd A. Rathe  
Registration No. 38,276